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RAPID-WINDING WINCH POWER PLANT AND ASSOCIATED AMUSEMENT RIDES

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ABSTRACT OF THE DISCLOSURE

A winch 10 has a drum 26 that winds and unwinds a cable 28 in response to winding and unwinding of tethers 30 about an axle 24. The tethers 30 are connected to telescopic spring devices 46 with staged concentric springs 48 that store energy, and a brake 45 is releasable to permit the drum 26 to rotate under the force of the stored energy. The drum 26 has a diameter that is greater than a diameter of the axle 24, thereby producing a mechanical advantage. The cable 28 is also connected to a passenger carriage 201 of an amusement ride 200 that travels under the force of the stored energy.

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